What is claimed:

1. A head suspension assembly comprising:

a suspension arm having a trench formed therein; and

a membrane positioned on the suspension arm and adapted to support a slider thereon, wherein at least a portion of the membrane is positioned adjacent to the trench.

2. A head suspension assembly as in claim 1, wherein the suspension arm and the membrane are formed from materials having different compositions.

3. A head suspension assembly as in claim 2, wherein the suspension arm is formed from silicon.

4. A head suspension assembly as in claim 2, wherein the membrane is formed from a material including carbon.

5. A head suspension assembly as in claim 1, wherein the membrane comprises a glassy carbon material.

6. A head suspension assembly as in claim 1, wherein the suspension arm is formed from a silicon wafer and the membrane comprises a glassy carbon material.

7. A head suspension assembly as in claim 1, further comprising a slider positioned on the membrane over the trench.

8. A head suspension assembly as in claim 1, wherein the membrane extends across the trench.

9. A head suspension assembly as in claim 1, wherein the membrane is formed from an electrically conductive material.

10. A head suspension assembly as in claim 7, further comprising at least one wiring line electrically coupled to slider positioned on the membrane, wherein at least a portion of one wiring line is positioned so that the wiring line extends at least one of (a) into the suspension arm to a depth, and (b) on the surface of the suspension arm.

11. A head suspension assembly comprising:

a suspension arm having a opening extending a distance therein; and

a membrane positioned on the suspension arm and adapted to support a slider thereon, wherein a portion of the membrane is positioned over the opening.

12. A head suspension assembly as in claim 11, wherein the suspension arm is formed from silicon.

13. A head suspension assembly as in claim 12, wherein the membrane is formed from a material including carbon.

14. A head suspension assembly as in claim 11, wherein the membrane comprises a glassy carbon material.

15. A head suspension assembly as in claim 14, further comprising a slider positioned on the glassy carbon material over the opening.

16. A disk drive for reading and writing disks, the disk drive including a head suspension assembly, the disk drive comprising:

at least one disk;

a rotatable hub for mounting the disk;

a read/write head adapted to read from and write to the disk;

a slider onto which the read/write head is provided; and

a suspension assembly adapted to support the slider, the suspension assembly including a support arm defining a cavity, and a membrane positioned on the support arm, wherein at least a portion of the membrane is positioned adjacent the cavity.

17. A disk drive as in claim 16, wherein the membrane comprises a glassy carbon material and the support arm comprises silicon.

18. A disk drive as in claim 16, wherein the member extends over a portion of the cavity.